

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

5905-610

**EPA Reg. Number:** 

Date of Issuance:

12/7/17

#### NOTICE OF PESTICIDE:

X Registration
Reregistration
(under FIFRA, as amended)

Term of Issuance:
Unconditional

Name of Pesticide Product:

Omni Brand Lambda 1 EC

Name and Address of Registrant (include ZIP Code):

Bill Washburn Helena Chemical Company 225 Schilling Boulevard, Suite 300 Collierville, TN 38017

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/registration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Ш		
	Signature of Approving Official:	Date:
	Elgefel Frank for	12/7/17
ш	Kable Bo Davis, Product Manager 03 IVB-1, Registration Division (7505P)	

EPA Form 8570-6

- 2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 5905-610."
- 3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

Basic CSF dated 07/05/2017

If you have any questions, please contact Matthew Aubuchon by phone at 703 347-0477, or via email at Aubuchon.Matthew@epa.gov

Enclosure

# RESTRICTED USE PESTICIDE DUE TO TOXICITY TO FISH AND AQUATIC ORGANISMS

For retail sale to and use only by certified applicators, or persons under their direct supervision, and only for those uses covered by the certified applicator's certification.

Group	3	Insecticide
O. C 5. P		

### **OMNI BRAND LAMBDA 1 E.C.**

Active Ingredient:	
Lambda-cyhalothrin <sup>1</sup>	
[1a(S*),3a(Z)]-(±)-cyano-(3-phenoxyphenyl)methyl- 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-	
dimethylcyclopropanecarboxylate	13.1%
Other Ingredients:	86.9%
Total:	100.0%
Contains petroleum distillate.	
<sup>1</sup> Synthetic pyrethroid	

Omni Brand Lambda 1 EC contains 1 pound of active ingredient per gallon and is an emulsifiable concentrate.

# KEEP OUT OF REACH OF CHILDREN. DANGER/PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

	FIRST AID		
If on skin or	Take off contaminated clothing.		
clothing	Rinse skin immediately with plenty of water for 15-20 minutes.		
	Call a poison control center or doctor for treatment advice.		
If in eyes	Hold eye open and rinse slowly and gently with water for 15-20 minutes.		
	<ul> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>		
	Call a poison control center or doctor for treatment advice		
If swallowed	Call a poison control center or doctor immediately for treatment advice.		
	Do not give any liquid to the person.		
	<ul> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> </ul>		
	Do not give anything by mouth to an unconscious person.		
If inhaled	Move person to freshair.		
	<ul> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably</li> </ul>		
	by mouth-to-mouth, if possible.		
	Call a poison control center or doctor for treatment advice		
	NOTE TO PHYSICIAN		
	um distillate - vomiting may cause aspiration pneumonia.		
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.			
	HOT LINE NUMBER		
For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or			
Accident), Call 1-800-424-9300			

#### Additional Precautions and Directions for Use inside Product Booklet

EPA Reg. No. 5905-610	AD xxxxxx
EPA Est. No	NET CONTENTS:

Manufactured for Helena Chemical Company 225 Schilling Boulevard, Suite 300 Collierville, TN 38017

ACCEPTED
12/07/2017
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under
EPA Reg. No. 5905-610

# PRECAUTIONARY STATEMENTS Hazards to Humans and Domestic Animals DANGER/PELIGRO

Corrosive. Causes skin burns. May be fatal if swallowed or inhaled. Causes substantial but temporary eye injury. Do not get in eyes on skin or clothing. Do not breathe vapor or spray mist. Harmful if absorbed through skin. Wear protective clothing, gloves, eyewear (goggles, face shield, or safety glasses) and respirator as indicated under **Personal Protective Equipment**. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Skin exposure may also result in a sensation described as a tingling, itching, burning, or prickly feeling. Onset may occur immediately to 4 hours after exposure and may last 2 to 30 hours, without damage. Wash exposed areas once with soap and water. Relief from the skin sensation may be obtained by applying an oil-based cream.

#### **Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category E on an EPA chemical resistant category selection chart.

Applicators and other handlers must wear:

- Coveralls over long-sleeved shirt and long\_pants
- Chemical-resistant gloves, Category E, including barrier laminate, nitrile rubber, neoprene rubber or viton >14
  mils
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading
- A NIOSH approved respirator with an organic vapor (OV) cartridge with a combination R or P filter, with NIOSH approval number prefix TC 84A; or a NIOSH approved gas mask with an organic vapor canister with NIOSH approval number prefix TC 14G.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **User Safety Recommendations**

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash theoutside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **Environmental Hazards**

This pesticide is extremely toxic to fish and aquatic organisms and toxic to wildlife.

For terrestrial use: do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are foraging thetreatment area.

#### **Physical and Chemical Hazards**

Combustible liquid. Do not use or store near heat or open flame. Do not mix or allow contact with oxidizing agents. Hazardous chemical reaction may occur.

#### **DIRECTIONS FOR USE**

#### RESTRICTED USE PESTICIDE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be 1n the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

This labeling must be in the possession of the user at the time of application.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves, Category E, including barrier laminate, nitrile rubber, neoprene rubber or viton >14 mils
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

# FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR INSECT CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

#### **USE DIRECTIONS**

Initial and residual control are contingent upon thorough crop coverage. Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. Apply in a minimum of 2 gal. per acre by air or 10 gal. per acre by ground unless otherwise specified in this label. When foliage is dense or pest pressure is high (heavier insect or egg pressure, larger larval stages), use of higher application volumes and/or higher use rates may improve initial and residual control.

For cutworm control, Omni Brand Lambda 1 EC may be applied before, during or after planting. For soil incorporated applications, use higher rates for improved control.

#### RESISTANCE MANAGEMENT

Omni Brand Lambda 1 EC is a Group 3 Insecticide (contains the active ingredient lambda- cyhalothrin). Some insects are known to develop resistance to products used repeatedly for control. Because the development of Resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may

not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area.

#### **SPRAY DRIFT PRECAUTIONS**

#### **BUFFER ZONES**

#### **Vegetative Buffer Strip**

Construct and maintain a minimum 10-foot-wide vegetative filter strip of grass or other permanent vegetation between the field edge and down gradient aquatic habitat (including, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; estuaries; and commercial fish farm ponds).

Only apply products containing Omni Brand Lambda 1 EC onto fields where a maintained vegetative buffer strip of at least 10 feet exists between the field and down gradient aquatic habitat.

For guidance, refer to the following publication for information onconstructing and maintaining effective buffers:

Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. USDA, NRCS. 2000. Fort Worth, Texas. 21 pp. <u>www.in.nrcs.usda.gov/technical/agronomy/newconbuf.pd</u>f

#### Buffer Zone for Ground Application (groundboom, overhead chemigation, or airblast)

Do not apply within 25 feet of aquatic habitats (including, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes; natural ponds; estuaries; and commercial fish ponds).

#### **Buffer Zone for ULV Aerial Application**

Do not apply within 450 feet of aquatic habitats (including, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes; natural ponds; estuaries; and commercial fish ponds).

#### **Buffer Zone for Non-ULV Aerial Application**

Do not apply within 150 feet of aquatic habitats (including, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes; natural ponds; estuaries; and commercial fish ponds).

#### SPRAY DRIFT REQUIREMENTS

#### Wind Direction and Speed

Only apply this product if the wind direction favors on-target deposition. Do not apply when the wind velocity exceeds 15 mph.

#### **Temperature Inversion**

Do not make aerial or ground applications into temperature inversions.

Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

#### **Droplet Size**

Use only medium or coarser spray nozzles (for ground and non-ULV aerial application) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

#### **Additional Requirements for Ground Applications**

Wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.

For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy.

For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

#### **Additional Requirements for Aerial Applications**

The spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of the wing span or 80% rotor diameter.

Flight speed and nozzle orientation must be considered in determining drop size.

Spray must be released at the lowest height consistent with pest control and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.

When applications are made with a cross-wind, the swath will be displaced downward. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

#### **CHEMIGATION**

#### **Sprinkler Irrigation Application**

Apply Omni Brand Lambda 1 EC at rates and timing described elsewhere in this label. As local recommendations differ, consult your local State Extension Service or other local experts for recommendations on adjuvant or diluent types, rates and mixing instructions. These recommendations should be proven, through university and extension field trials, to be effective with Omni Brand Lambda 1 EC applied by chemigation.

Check the irrigation system to insure uniform application of water to all areas. Thorough coverage of foliage is required for good control. Good agitation in the pesticide supply tank should be maintained prior to and during the entire application period:

Apply by injecting the specified rate of Omni Brand Lambda 1 EC ·into the irrigation system using a metering device that will introduce a constant flow and by distributing the product to the target area in 0.1 - 0.2 acre-inch of water. In general; use the least amount of water required for proper distribution and coverage. It is recommended that the product be injected into the main irrigation line ahead of a right angle turn in the line to insure adequate dispersion or mixing in the irrigation water. Once the application is completed, flush the entire irrigation and injection system with clean water before stopping the system.

In addition to the above recommendations, if application is being made during a normal irrigation set of a stationary sprinkler, the recommended rate of Omni Brand Lambda 1 EC for the area covered should be injected into the system only during the end of the irrigation set for sufficient time to provide adequate coverage and product distribution.

It is not recommended that Omni Brand Lambda 1 EC be applied through an irrigation system connected to a public water system. Public water system means a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

#### **Use Precautions: Sprinkler Irrigation Application**

- A. Apply this product only through (sprinkler including center pivot, lateral move, end tow, side [wheel] roll, traveler, big gun, solid set, or hand move) irrigation system(s). Do not apply this product through any other type of irrigation system.
- B. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.
- C. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- D. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label- prescribed safety devices for public water systems are in place.

- E. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- F. The system must contain a functional check valve. Vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water- source contamination from backflow.
- G. The pesticide injection pipeline must contain a functional, automatic, quick- closing check valve to prevent the flow of fluid back toward the injection pump.
- H. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- I. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- J. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- K. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- L. Any alternatives to the above required safety devices must conform to the list of EPA-approved alternative devices.
- M. Do not apply when wind speed favors drift beyond the area intended for treatment or non-uniform distribution of treated water.
- N. Do not apply through chemigation systems connected to public water systems.

### **SPECIFIC USE DIRECTIONS**

#### **AGRICULTURAL USES**

### **ALFALFA AND ALFALFA GROWN FOR SEED**

	Rat	
Target Pests	lb. a.i./A	fl. oz./A
Alfalfa Caterpillar	0.015 - 0.025	1.92 - 3.20
Army Cutworm		
Cutworm species		
Green Cloverworm		
_eafhopper species		
_ooper species		
Threecornered Alfalfa Hopper		
Velvetbean Caterpillar		
Webworm species		
Alfalfa Seed Chalcid (Adult)	0.02 - 0.03	2.56 - 3.84
Alfalfa Weevil		
Armyworm		
Bean Leaf Beetle (Adult)		
Blister Beetle species		
Blue Alfalfa Aphid		
Clover Leaf Weevil species		
Clover Root Borer (Adult)		
Clover Root Curculio species (Adult)		
Clover Stem Borer (Adult)		
Corn Earworm Cowpea Áphid		
Cowpea Curculio (Adult)		
Cowpea Weevil (Adult)		
Cucumber Beetle species (Adult)		
Egyptian Alfalfa Weevil		
Fall Armyworm <sup>1</sup>		
Grape Colaspis (Adult)		
Grasshopper species		
Green June Beetle (Adult)		
Green Peach Aphid 3		
Japanese Beetle (Adult)		
Meadow Spittlebug		
Mexican Bean Beetle		
Pea Aphid		
Pea Weevil (Adult)		
Plant Bug species including Lygus species <sup>3</sup>		
Spotted Alfalfa Aphid		
Stink Bug species		
Sweet Clover Weevil (Adult)		
Fhrips species <sup>4</sup>		
Western Yellowstriped Armyworm		
Whitefringed Beetle species (Adult)		
Yellowstriped Armyworm		
Beet Armyworm 1,3	0.03	3.84
Blotch Leafminer <sup>3</sup>	0.03	J.U <del>4</del>
Spider Mites <sup>2</sup>		

- <sup>1</sup> Use higher rates for large larvae.
- <sup>2</sup> Suppression only.
- <sup>3</sup> See **Resistance** statement under **Use Directions**.
- <sup>4</sup> Does not include Western Flower Thrips.

#### Application Instructions for Alfalfa and Alfalfa Grown for Seed

- Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. Apply in a minimum of 2 gal. per acre by air or 10 gal. per acre by ground. When foliage is dense and/or pest populations are high
- 5-10 gal. per acre by air or 20 gal. per acre by ground and higher use rates are recommended. Use higher rates for increased residual control.
- Avoid application when bees are actively foraging by applying during the early morning or during the
  evening hours. Be aware of bee hazard resulting from a cool evening and/or morning dew. It may be
  advisable to remove bee shelters during and for 2-3 days following application. Do not apply directly to bee
  shelters.
- Do not apply more than 0.03 lb. a.i. (3.84 fl. oz. or 0.24 pt. of product) per acre per cutting.
- Do not apply more than 0.12 lb. a.i. (15.36 fl. oz. or 0.96 pt. of product) per acre per season.
- Do not apply within 1 day of harvest for forage or within 7 days of harvest for hay.

#### **CANOLA**

	Rate		
Target Pests	lb. a.i./A	fl. oz./A	
Armyworm species	0.015 - 0.03	1.92 – 3.84	
Cabbage Seedpod Weevil			
Cutworm species			
Diamondback Moth			
Flea Beetle			
Grasshoppers			
Looper species			
Lygus Bug			
Cabbage Aphid	0.03	3.84	

#### **Application Instructions for Canola**

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply a minimum of 2 gal. of water per acre.
- Do not apply within 7 days of harvest.
- Do not apply more than 0.09 lb. a.i. (11.52 fl. oz. or 0.72 pt. of product) per acre per year.

CORN (at Plant): Field Corn, Popcorn, Seed Corn, Sweet Corn

	Rate	
Target Pest	lb. a.i. / A	fl. oz. / A
Corn Rootworm Larvae: Mexican Northern Southern Western Cutworm species Lesser Cornstalk Borer	0.005 lbs. a.i. per 1000 ft. of row <sup>2</sup>	0.66 fl. oz. per 1000 fl. of row <sup>2</sup>
Seedcorn Beetle Seedcorn Maggot White Grub species Wireworm species		

#### Application Instructions for CORN (at Plant): Field Corn, Popcorn, Seed Corn, Sweet Corn

- Banded Applications Apply at planting as a 5-7 inch T-band sprayed across the open seed furrow between the furrow openers and the press wheels or as a band application behind the press wheel.
- In-Furrow Applications Apply into the seed furrow through spray nozzles or microtubes, behind the planter furrow openers and in front of the press wheel.
- Apply a minimum of 3 gal. finished spray per acre.
- Do not harvest or graze livestock or cut treated crops for feed within 21 days of at plant application.
- Do not apply more than 0.09 lb. a.i. (11.52 fl. oz. or 0.72 pt. of product) per acre per crop at plant.
- For field corn, popcorn, and seed corn do not apply more than 0.12 lb. a.i. (15.36 fl. oz. or 0.96 pt. of product) per acre per crop from at plant and foliar applications. For sweet corn do not apply more than 0.48 lb. a.i. (61.44 fl. oz. or 3.84 pt. of product) per acre per crop from at plant and foliar applications.

<sup>2</sup> lbs. a.i. and fl. oz./A of Omni Brand Lambda 1 EC Applied at 0.66 fl. oz./1000 ft. of Row for Various Row Spacings						
Row Spacing	40"	38"	36"	34"	32"	30"
linear ft./A	13.068	13.756	14.520	15.374	16.335	17.424
lbs.a.i./A	0.067	0.07	0.075	0.079	0.084	0.09
fl. oz./A	8.6	9.1	9.6	10.1	10.8	11.5

CORN (Foliar): Field Corn, Popcorn, Seed Corn

	Rate	
Target Pests	lb. a.i./A	fl. oz./A
Com Earworm <sup>1</sup>	0.015 - 0.025	1.92 – 3.20
Cutworm species		
Green Cloverworm		
Meadow Spittlebug		
Western Bean Cutworm <sup>1</sup>		
Armyworm <sup>2</sup>	0.02 - 0.03	2.56 – 3.84
Bean Leaf Beetle		
Bird Cherry-Oat Aphid <sup>3</sup>		
Cereal Leaf Beetle		
Com Leaf Aphid <sup>3</sup>		
Com Rootworm Beetle (Adult):		
Mexican		
Northern		
Southern		
Western		
English Grain Aphid <sup>3</sup>		
European Corn Borerı		
Fall Armyworm <sup>2</sup>		
Flea Beetle species		
Grasshopper species		
Hop Vine Borer <sup>1</sup>		
Japanese Beetle (Adult)		
Lesser Cornstalk Borer		
Sap Beetle (Adult)		
Seed corn Beetle		
Southwestern Com Borer <sup>1</sup>		
Stalk Borer <sup>1</sup>		
Stink Bug species		
Tobacco Budworm <sup>1,4</sup>		
Webworm species		
Yellowstriped Armyworm <sup>2</sup>		
Beet Armyworm <sup>4</sup>	0.03	3.84
Chinch Bug		
Greenbug <sup>3,4</sup>		
Mexican Rice Borer <sup>1</sup>		
Rice Stalk Borer <sup>1</sup>		
Southern Com Leaf Beetle <sup>3</sup>		
Sugarcane Borer <sup>1</sup>		

<sup>&</sup>lt;sup>1</sup> For control before the larva bores into the plant stalk or ear.

#### Application Instructions for CORN (Foliar): Field Corn, Popcorn, Seed Corn

- Apply as required by scouting, or locally prescribed com growth stages, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds or other locally recommended methods.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of target location. When applying by air, apply in a minimum of 2 gal. of water per acre.
- For chinch bug control, begin applications when bugs migrate from small grains or grass weeds to small com. Direct spray to the base of corn plants. Repeat applications at 3-5-day intervals if needed. Omni Brand Lambda 1 EC may only suppress heavy infestations and/or subsequent migrations.
- For control of adult corn rootworm beetles (*Diabrotica* species) as part of an aerial applied corn rootworm control program use a minimum of 0.03 lb. a.i. (3.84 fl. oz. of product) per acre.
- Do not apply within 21 days of harvest.
- Do not allow livestock to graze in treated areas or harvest treated corn forage as feed for meat or dairy animals within 1 day after last treatment. Do not feed treated corn fodder or silage to meat or dairy animals within 21 days after last treatment.
- Do not apply more than 0.12 lb. a.i. (15.36 fl. oz. or 0.96 pt. of product) per acre per crop from at plant and

<sup>&</sup>lt;sup>2</sup> Use higher rates for large larvae.

<sup>&</sup>lt;sup>3</sup> Suppression only.

<sup>&</sup>lt;sup>4</sup> See **Resistance** statement under **Use Directions**.

- foliar application.
- Do not apply more than 0.06 lb. a.i. (7.68 fl. oz. or 0.48 pt. of product) per acre after silk initiation. Do not apply more than 0.03 lb. a.i. (3.84 fl. oz. or 0.24 pt. of product) per acre after corn has reached the milk stage (yellow kernels with milky fluid).

CORN (Foliar): Sweet Corn

	Rate		
Target Pests	lb. a.i./A	fl. oz./A	
Aphid Species <sup>2,3</sup>	0.02 - 0.03	2.56 - 3.84	
Armyworm <sup>1</sup>			
Aster Leafhopper			
Beet Armyworm <sup>1,3</sup>			
Chinch Bug			
Common Cornstalk Borer Corn			
Earworm			
Corn Rootworm Beetle (Adult):			
Mexican			
Northern Southern Western			
Cutworm species			
European Com Borer			
Fall Armyworm <sup>1</sup>			
Flea Beetle species			
Grasshopper species			
Japanese Beetle (Adult)			
Sap Beetle (Adult)			
Southern Armyworm <sup>1</sup>			
Southwestern Com Borer			
Spider Mite species <sup>2</sup>			
Stink Bug species			
Tarnished Plant Bug			
Webworm species			
Western Bean Cutworm			
Yellowstriped Armyworm <sup>1</sup>			
Corn Silkfly (Adult) <sup>2</sup>	0.03	3.84	

<sup>&</sup>lt;sup>1</sup> Use higher rates for large larvae.

#### Application Instructions for CORN (Foliar): Sweet Corn

- Apply as required by scouting, or locally prescribed corn growth stages, usually at intervals of 4 or more
  days. Timing and frequency of applications should be based upon insect populations reaching locally
  determined economic thresholds or other locally recommended methods and should be targeted for control
  before insects enter the stalk or ear.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage and ears (if present). When applying by air, apply in a minimum of 2 gal. of water per acre.
- For control of adult corn rootworm beetles (*Diabrotica* species) as part of an aerial applied corn rootworm control program use a minimum of 0.025 lb. a.i. (3.2 fl. oz. of product) per acre.
- Do not apply within 1 day of harvest.
- Do not allow livestock to graze in treated areas or harvest treated corn forage as feed for meat or dairy animals within 1 day after last treatment. Do not feed treated corn fodder or silage to meat or dairy animal within 21 days after last treatment.
- Do not apply more than 0.48 lb. a.i. (61.44 fl. oz. or 3.84 pt. of product) per acre per crop from at plant and foliar applications.

<sup>&</sup>lt;sup>2</sup> Suppression only.

<sup>&</sup>lt;sup>3</sup> See **Resistance** statement under **Use Directions**.

# CEREAL GRAINS: RICE. WILD RICE

	Rate	
Target Pests	lb. a.i./A	fl. oz./A
Bird Cherry-Oat Aphid	0.025 - 0.04	3.20 - 5.12
Cinch Bug		
Fall Armyworm		
Grasshopper species		
Greenbug		
Leafhopper species		
Rice Stink Bug		
Riceworm		
Rice Water Weevil (Adult)		
Sharpshooter species		
True Armyworm		
Yellow Sugarcane Aphid		
Yellowstriped Armyworm		
European Corn Borer <sup>1</sup>	0.03 - 0.04	3.84 – 5.12
Mexican Rice Borer <sup>1</sup>		
Rice Seed Midge <sup>1</sup>		
Rice Stalk Borer <sup>1</sup>		
Sugarcane Borer <sup>1</sup>		

<sup>&</sup>lt;sup>1</sup> For control before the larvae bores into the plant stalk.

#### **Application Instructions for RICE, WILD RICE**

- Apply as required by scouting. Timing and frequency of application should be based upon insect populations
  reaching locally determined economic thresholds. Determine the need for repeat applications, usually at intervals
  of 5-7 days, by scouting.
- Omni Brand Lambda 1 EC can be safely used when propanil products are being used for weed control.
- Apply by air or by ground equipment using sufficient water to obtain full coverage of foliage. When applying by
  air, apply in a minimum of 2 gal. of water (or a total carrier volume) per acre but ensure sufficient volume is used
  to provide adequate coverage. In addition, adding an emulsifiable crop oil (e.g., 1 pt. per acre) when lower aerial
  application volumes are used is recommended to help improve coverage, reduce evaporation, and improve
  efficacy.
- For control of rice water weevil in dry seeded rice, make a foliar application as indicated by scouting for the
  presence of adults and/or feeding scars, usually within a time-frame of 0-5 days after permanent flood
  establishment. Do not exceed 10 days from starting permanent flood until insecticide application unless scouting
  indicates weevils have not been previously present. Adults may also be treated at later stages of rice
  development to reduce overwintering populations.
- For control of rice water weevil in water seeded rice, make the first foliar application after pinpoint flood as indicated by scouting for the presence of adults and/or feeding scars usually when rice has emerged 0.5 inch above the waterline. Under conditions of prolonged migration into the field, start field scouting for rice water weevil adults and/or feeding scars 3-5 days after the initial treatment and, if needed, apply a second application within 7-10 days of the first application. Adults may also be treated at later stages of rice development to reduce overwintering populations.
- California: In addition to above directions for control of rice water weevil in water seeded rice, Omni Brand
  Lambda 1 EC may be applied at the 1-3 leaf growth stage, with the majority at the 2 leaf growth stage. Adults are
  vulnerable on levees and in the water. Larvae are vulnerable while feeding on the leaf prior to entering the soil.
  Monitor for adults, based upon field history and density of population. Monitor field edges and levee areas for
  adults. Treat in the following manner: a) spray the inside perimeter of the field, orb) spray the entire field.
- Greenbug is known to have many biotypes. Omni Brand Lambda 1 EC may only provide suppression. If satisfactory control is not achieved with the first application of Omni Brand Lambda 1 EC, a resistant biotype may be present. Use alternate chemistry for control.
- For control of stem borers, scout fields, when rice growth is near panicle differentiation, for early symptoms of damaging populations exhibited as discoloration (orange-tan) around the junction of the leaf sheath and leaf blade which is caused by feeding of young larvae within the sheath. Applications must be made before larvae bore into rice stems. Make the first application at panicle differentiation to 2 inch panicle for partial control. Make the second application at boot to heading for maximum control. All rice varieties are susceptible to stem borer damage, but Cocodrie and Priscilla are particularly susceptible.
- Mixers/loaders supporting aerial applications to wild rice at a rate of 0.04 lb. ai. per acre, and treating 1200 acres (or more) per day must wear dust-mist respirator.
- Do not release flood water within 7 days of an application.

- Do not apply more than 0.12 lb. a.i. (15.36 fl. oz. or 0.96 pt. of product) per acre per season.
- Do not apply more than 0.04 lb. a.i. (5.12 fl. oz. or 0.32 pt. of product) per acre within 21to 27 days of harvest.
- Do not apply within 21 days of harvest.
- Do not use treated rice fields for the aquaculture of edible fish and crustacea.
- Do not apply as an ultra-low volume (ULV) spray.

# CEREAL GRAINS: SORGHUM (Grain)

	F	Rate
Target Pests	lb. a.i./A	fl. oz./A
Cutworm species	0.015 - 0.02	1.92 – 2.56
Sorghum Midge		
Armyworm	0.02 - 0.03	2.56 – 3.84
Beet Armyworm <sup>3</sup>		
Corn Earworm		
European Corn Borer <sup>2</sup>		
Fall Armyworm <sup>1</sup>		
Flea Beetle species		
Grasshopper species		
Lesser Cornstalk Borer <sup>2</sup>		
Southwestern Corn Borer <sup>2</sup>		
Stink Bug species		
Webworm species		
Yellowstriped Armyworm <sup>1</sup>		
Chinch Bug	0.03	3.84
Mexican Rice Borer <sup>2</sup>		
Rice Stalk Borer <sup>2</sup>		
Sugarcane Borer <sup>2</sup>		

<sup>&</sup>lt;sup>1</sup> Use higher rates for large larvae.

#### Application Instructions for SORGHUM (Grain)

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of target location. When applying by air, apply in a minimum of 2 gal. of water per acre.
- For sorghum midge control, begin applications when 25% of the sorghum heads have emerged and are in tip bloom. Repeat applications at 5-day intervals if needed.
- For chinch bug control, begin applications when bugs migrate from small grains or grass weeds to small sorghum. Direct spray to the base of sorghum plants. Repeat applications at 3 5-day intervals if needed. Omni Brand Lambda 1 EC may only suppress heavy infestations and/or subsequent migrations.
- Do not apply more than 0.08 lb. a.i. (10.24 fl. oz. or 0.64 pt. of product) per acre per season.
- Do not apply more than 0.06 lb. a.i. (7.68 fl. oz. or 0.48 pt. of product) per acre per season after crop emergence.
- Do not apply more than 0.02 lb. a.i. (2.56 fl. oz. or 0.16 pt. of product) per acre per season once crop is in soft dough stage.
- Do not apply within 30 days of harvest.

<sup>&</sup>lt;sup>2</sup> For control before the larva bores into the plant stalk.

<sup>&</sup>lt;sup>3</sup> See **Resistance** statement under **Use Directions**.

### BUCKWHEAT, BARLEY, OATS, RYE, TRITICALE, WHEAT, WHEAT HAY

	Ra	ate
Target Pests	lb. a.i./A	fl. oz./A
Army Cutworm	0.015 - 0.025	1.92 – 3.20
Cutworm species		
Armyworm	0.02 - 0.03	2.56 – 3.84
Bird Cherry-Oat Aphid 1		
Cereal Leaf Beetle		
English Grain Aphid <sup>1</sup>		
Fall Armyworm		
Flea Beetle species		
Grasshopper species		
Hessian Fly		
Orange Blossom Wheat Midge		
Russian Wheat Aphid 1		
Stink Bug species		
Yellowstriped Armyworm		
Grass Sawfly	0.025 - 0.03	3.20 – 3.84
Chinch Bug	0.03	3.84
Corn Leaf Aphid <sup>2</sup>		
Greenbug <sup>1,3</sup>		
Mite species <sup>2</sup>		

Best control is obtained before insects begin to roll leaves. Once crop has started to boot, Omni Brand Lambda 1 EC may provide suppression only. Higher rates and increased coverage will be necessary.

#### Application Instructions for BUCKWHEAT, BARLEY, OATS, RYE, TRITICALE, WHEAT, WHEAT HAY

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gal. of water per acre.
- For chinch bug control, repeat applications at 3 5-day intervals if needed. Omni Brand Lambda 1 EC may only suppress heavy infestations and/or migrations.
- Greenbug is known to have many biotypes. Omni Brand Lambda 1 EC may provide suppression only. In this situation, a second application using an alternative chemistry may be needed.
- Do not apply within 30 days of harvest.
- Do not allow livestock to graze in treated areas or harvest treated wheat forage as feed for meat or dairy animals within 7 days after treatment. Do not feed treated straw to meat or dairy animals within 30 days after the last treatment.
- Do not apply more than 0.06 lb. a.i. (7.68 fl. oz. or 0.48 pt. of product) per acre per season.

<sup>&</sup>lt;sup>2</sup> Suppression only.

<sup>&</sup>lt;sup>3</sup> See **Resistance** statement under **Use Directions**.

<sup>&</sup>lt;sup>4</sup> Make applications when adults emerge.

#### COLE CROPS (HEAD AND STEM *BRASSICA*):

Broccoli; Brussels Sprouts; Cabbage; Cauliflower; Cavalo Broccolo; Chinese Broccoli (gai

Ion); Chinese Cabbage (napa); Chinese Mustard (gai choy); Kohlrabi

iony, omnoco cassago (napa), om	Ra	
Target Pests	lb. a.i./A	fl. oz./A
Alfalfa Looper	0.015 - 0.025	1.92 - 3.20
Cabbage Looper		
Cabbage Webworm		
Cutworm species		
Imported Cabbageworm		
Southern Cabbageworm		
Aphid species <sup>2,3</sup>	0.02 - 0.03	2.56 - 3.84
Armyworm		
Beet Armyworm <sup>1,3</sup>		
Corn Earworm		
Diamondback Moth <sup>3</sup>		
Fall Armyworm <sup>1</sup>		
Flea Beetle species		
Grasshopper species		
Japanese Beetle (Adult)		
Leafhopper species		
Meadow Spittlebug		
Plant Bug species including Lygus		
species <sup>3</sup>		
Spider Mite species <sup>2</sup>		
Stink Bug species		
Thrips species <sup>2</sup>		
Vegetable Weevil (Adult)		
Whitefly species <sup>2,3</sup>		
Yellowstriped Armyworm		

<sup>&</sup>lt;sup>1</sup> For control of first and second instar only.

#### Application Instructions for COLE CROPS (HEAD AND STEM BRASSICA)

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gal. of water per acre.
- Do not apply within 1 day of harvest.
- Do not apply more than 0.24 lb. a.i. (30.72 fl. oz. or 1.92 pt. of product) per acre per season.

<sup>&</sup>lt;sup>2</sup> Suppression only.

<sup>&</sup>lt;sup>3</sup> See **Resistance** statement under **Use Directions**.

#### COTTON

	Rate	
Target Pests	lb. a.i./A	fl. oz./A
Cutworm species	0.015 - 0.02	1.92 - 2.56
Soybean Thrips		
Tobacco Thrips		
Cabbage Looper	0.02 - 0.03	2.56 - 3.84
Cotton Fleahopper		
Cotton Leafperforator		
Cotton Leafworm		
Lygus Bug species <sup>3</sup>		
Pink Bollworm		
Saltmarsh Caterpillar		
Bandedwing Whitefly <sup>2,3</sup>	0.025 - 0.04	3.20 - 5.12
Beet Armyworm <sup>1,3'</sup>		
Boll Weevil		
Brown Stink Bug		
Cotton Aphid <sup>2,3</sup>		
Cotton Bollworm		
European Com Borer		
Fall Armyworm		
Green Stink Bug		
Southern Green Stink Bug		
Sweetpotato Whitefly <sup>2,3</sup>		
Tobacco Budworm <sup>3</sup>		
Twospotted Spider Mite <sup>2</sup>		

<sup>&</sup>lt;sup>1</sup> For control of first and second instar only.

#### Application Instructions for COTTON

- Apply as required by scouting, usually at intervals of 5 7 days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage.
- Applications may also be made with equipment adapted and calibrated for ULV sprays. Omni Brand Lambda 1
  EC may be mixed with once-refined vegetable oil and applied in a minimum of at least one qt. of finished
  spray /A.
- Under light bollworm/budworm infestation levels, 0.02 lb. a.i. (2.56 fl. oz. of product) per acre may be applied in conjunction with intense field monitoring.
- For boll weevil control spray on a 3 5 day schedule.
- When applied according to label directions for control of cotton bollworm and tobacco budworm, Omni Brand Lambda 1 EC also provides ovicidal control of unhatched *Heliothine* species eggs.
- Do not apply within 21 days of harvest.
- Do not graze livestock intreated areas.
- Do not apply more than 0.2 lb. a.i (25.6 fl. oz. or 1.6 pt. of product) per acre per season.
- Do not make more than a total of 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season.

<sup>&</sup>lt;sup>2</sup> Suppression only.

<sup>&</sup>lt;sup>3</sup> See **Resistance** statement under **Use Directions**.

#### **CUCURBIT VEGETABLES:**

Chayote (fruit); Chinese Waxgourd (Chinese preserving melon); Citron Melon; Cucumber Gherkin; Gourd (edible), Lagenaria species - includes: hyotan, cucuzza, Luffa acutangula, L. cylindrical - includes: hechima, Chinese okra; Momordica species - includes: balsam apple, balsam pear, bitter melon, Chinese cucumber; Muskmelon (hybrids and/or cultivars of Cucumis me/o)- includes: true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon; Pumpkin; Squash, summer(Cucurbita pepo var. melopepo)- includes: crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini; Squash, winter (Cucurbita maxima; C. moschata)- includes butternut squash, calabaza, hubbard squash (C. mixta; C. pepo) - includes: acorn squash, spaghetti squash; Watermelon - includes: hybrids and/or varieties of Citrulius lanatus

	R	ate
Target Pests	lb. a.i./A	fl. oz./A
Armyworm species <sup>1</sup>	0.02-0.03	2.56-3.84
Blister Beetle species		
Cabbage Looper		
Com Earworm		
Cricket species		
Cucumber Beetle species (adults)		
Cutworm species		
Flea Beetle species		
Grasshopper species		
June Beetle species		
Leaffooted Bug		
Leafhopper species		
Lygus Bug species <sup>1</sup>		
Melonworm		
Pickleworm		
Plant Bug species		
Rindworm species complex		
Saltmarsh Caterpillar		
Squash Beetle		
Squash Bug species		
Squash Vine Borer species		
Stink Bug species		
Thrips species 1,2		
Tobacco Budworm <sup>1</sup>		
Webworm species		
Aphid species <sup>1</sup>	0.03	3.84
Leafminer species 1,3		
Spider Mite species <sup>3</sup>		
Whitefly species 1,3		

<sup>&</sup>lt;sup>1</sup> See **Resistance** statement under **Use Directions**.

#### **Application Instructions for CUCURBIT VEGETABLES**

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of all plant parts. When applying by air, apply in a minimum of 2 gal. total solution per acre. When applying by ground, a minimum of 10 gal. total solution per acre is recommended.
- Use higher application volumes and/or rates when foliage is dense, pest populations are high, larvae are large, weather conditions are adverse and/or as plant size increases. Use higher rates for longer residual.
- Insects that bore or tunnel into leaves, vines, stems or fruit must be controlled before penetration. Only exposed insects (larvae and/or adults) can be controlled with foliar applications of Omni Brand Lambda 1 EC.

<sup>&</sup>lt;sup>2</sup> Does not include Western Flower Thrips

<sup>&</sup>lt;sup>3</sup> Suppression only.

• Do not apply more than 0.18 lb. a.i. (23 fl. oz. or 1.44 pt. of product) per acre per season. Do not apply within 1 day of harvest.

#### FRUITING VEGETABLES:

Eggplant; Ground cherry; Pepino; Peppers (bell and nonbell); Tomatillo; Tomato

	Rate	
Target Pests	lb. a.i./A	fl. oz./A
Cabbage Looper	0.015 - 0.025	1.92 - 3.20
Cutworm species		
Hornworm species		
Aphid species <sup>2,3</sup>	0.02 - 0.03	2.56 - 3.84
Beet Armyworm <sup>1,3</sup>		
Blister Beetle species		
Colorado Potato Beetle 3		
Cucumber Beetle species (Adult)		
European Corn Borer <sup>4</sup>		
Fall Armyworm <sup>1</sup>		
Flea Beetle species		
Grasshopper species		
Japanese Beetle (Adult)		
Leafhopper species		
Leafminer species <sup>2</sup>		
Meadow Spittlebug		
Pepper Weevil (Adult)		
Plant Bug species		
Southern Armyworm <sup>1</sup>		
Spider Mite species <sup>2</sup>		
Stalk Borer <sup>4</sup>		
Stink Bug species		
Thrips <sup>5</sup>		
Tobacco Budworm <sup>3</sup>		
Tomato Fruitworm		
Tomato Pinworm		
Tomato Psyllid <sup>2,3</sup>		
Vegetable Weevil (Adult)		
Whitefly species <sup>2,3</sup>		
Yellowstriped Armyworm <sup>1</sup>		

<sup>&</sup>lt;sup>1</sup> For control of first and second instar only.

#### **Application Instructions for FRUITING VEGETABLES**

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gal. of water per acre.
- Do not apply within 5 days of harvest.
- Do not apply more than 0.36 lb. a.i. (46.08 fl. oz. or 2.88 pt. of product) per acre per season.

<sup>&</sup>lt;sup>2</sup> Suppression only.

<sup>&</sup>lt;sup>3</sup> See **Resistance** statement under **Use Directions**.

<sup>&</sup>lt;sup>4</sup> For control before the larva bores into the plant stalk or fruit.

<sup>&</sup>lt;sup>5</sup> Does not include Western Flower Thrips.

#### GRASS FORAGE, FODDER AND HAY:

Pasture and Rangeland; Grass; Grass Grown for Hay or Silage and Grass Grown for Seed

<b>g</b> oa, oa	Rate	
Target Pests	lb. a.i./A	fl. oz./A
Army Cutworm	0.015 - 0.025	1.92 - 3.2
Cutworm species		
Essex Skipper		
Range Caterpillar		
Striped Grass Looper		
Beet Armyworm	0.02 - 0.03	2.56 - 3.84
Billbug species <sup>3</sup>		
Bird Cherry-Oat Aphid 1		
Black Grass Bug		
Black Turfgrass Beetle (adult)		
Blue Stem Midge		
Cereal Leaf Beetle		
Chinch Bug		
Crane Fly species		
Cricket species		
English Grain Aphid <sup>1</sup>		
Fall Armyworm		
Flea Beetle species		
Grass Mealybug		
Grass Sawfly (adult)		
Grasshopper species		
Green June Beetle (adult)		
Greenbug <sup>1,2</sup>		
Japanese Beetle (adult)		
Katydid species		
Leafhopper species		
Mite species 3		
Russian Wheat Aphid <sup>1</sup>		
Southern Armyworm		
Spittlebug species		
Stink Bug species		
Sugarcane Aphid		
Thrips species		
Tick species		
True Armyworm		
Webworm species		
Yellowstriped Armyworm		

<sup>&</sup>lt;sup>1</sup> Best control is obtained before insects begin to roll leaves.

#### Application Instructions for GRASS FORAGE, FODDER AND HAY

- Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gal. total solution per acre. When applying by ground, a minimum of 7 gal. total solution per acre is recommended.
- Use higher application volumes and rates when foliage is dense, pest populations are high, larvae are large and/or weather conditions are adverse. Use higher rates for longer residual.
- For chinch bug control, Omni Brand Lambda 1 EC may only suppress heavy infestations and/or migrations. In this situation, a second application using an alternative chemistry may be needed.
- Greenbug is known to have many biotypes. Omni Brand Lambda 1 EC may provide suppression only. In this situation, a second application using an alternative chemistry may be needed.

<sup>&</sup>lt;sup>2</sup> See **Resistance** statement under **Use Directions**.

<sup>&</sup>lt;sup>3</sup> Suppression only.

- Pasture and rangeland grass may be used for grazing or cut for forage 0 days after application. Do not cut grass to be dried and harvested for hay until 7 days after the last application.
   Grass grown for seed:
  - Straw and mature seed (seed screenings) may be used as feed 7 days after the last application.
     Regrowth of grass grown for seed may be used for grazing, cut for forage or cut to be dried and harvested for hay.
- Do not apply more than 0.03 lb. a.i. (3.84 fl. oz. or 0.24 pt. of product) per acre per cutting for pastures, rangeland and grasses grown for seed. A minimum re-treatment interval (RTI) of 30 days is required for pastures and rangeland receiving 0.03 lb. ai. per acre which have not been cut between applications.
- Do not apply more than 0.09 lb. a.i. (11.52 fl. oz. or 0.72 pt. of product) per acre per season.

### **LEGUME VEGETABLES (BEANS AND PEAS):**

**Edible Podded (Only) including:** Canavalia ensiformis – jackbean; Canavalia gladiate - sword bean; Glycine max – soybean (immature seed);

**Edible Podded Succulent Shelled or Dried Shelled including:-** *Cajanus cajan* - Pigeon Blister; *Phaseolus* species - includes: field, kidney, lima, navy, pinto, runner, snap, tepary and wax beans; *Pisum* species including: dwarf, edible-pod, English, field, garden, green, snow and sugar snap peas; *Vigna* species - includes: adzuki, asparagus, moth, mung, rice, urd and yard long beans, black- eye pea, catjang, Chinese longbean, cowpea, Crowder pea, and Southern pea;

Succulent Shelled or Dried Shelled including: Vicia faba. - broadbean (favabean);
Dried Shelled (Only) including: Cicer arietimum - chickpea (garbanzo bean), Cyamopsis
tetragonoloba – guar, Lablab pupureus - Lablab bean (hyacinth bean), Lupinus species - includes:
grain, sweet, white and sweet white lupines. Lens esculata - Lentils

	Rate	
Target Pests	lb. a.i./A	fl. oz /A
Cutworm species	0.015 - 0:025	1.92 - 3.20
Green Cloverworm		
Imported Cabbageworm		
Mexican Bean Beetle		
Saltmarsh Caterpillar		
Velvetleaf Caterpillar		
Alfalfa Caterpillar	0.02 - 0.03	2.56 - 3.84
Aphid species <sup>4</sup>		
Armyworm <sup>2</sup>		
Bean Leaf Beetle		
Bean Leafskeletonizer		
Blister Beetle species		
Corn Earworm		
Corn Rootworm Beetle species		
(Adult)		
Cucumber Beetle species (Adult)		
Curculio and Weevil species <sup>1</sup> (foliage		
and pod feeding adults and larvae)		
European Corn Borer		
Fall Armyworm <sup>2</sup>		
Flea Beetle species (Adult)		
Flea Hopper species		
Grasshopper species		
Japanese Beetle (Adult)		
Leafhopper species		
Leaftier species		
Looper Species		
Meadow Spittlebug		
Painted Lady Butterfly (larvae)		

Plant Bug species Including Lygus species <sup>4</sup> Stalk Borer <sup>1</sup> Stink Bug species Threecornered Alfalfa Hopper Thrips species <sup>4,5</sup> Tobacco Budworm Webworm species Western Bean Cutworm <sup>2</sup> Western Yellowstriped Armyworm Yellowstriped Armyworm <sup>2</sup>		
Beet Armyworm <sup>3,4</sup> Leafminer species <sup>3,4</sup> Lesser Cornstalk Borer <sup>3</sup> Soybean Looper <sup>3,4</sup> Spider Mite species <sup>3</sup> Whitefly species <sup>3,4</sup>	0.03	3.84

<sup>&</sup>lt;sup>1</sup> For control before the larva bores into the plant stalk or pods.

#### **Application Instructions for LEGUME VEGETABLES (BEANS AND PEAS)**

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water per acre.
- For edible podded and succulent shelled legume, vegetables, do not apply within 7 days of harvest.
- For dried shelled legume vegetables, do not apply within 21 days of harvest.
- Do not apply more than 0.12 lb. a.i. (15.36 fl. oz. or 0.96 pt. of product) per acre per season.
- For succulent and dried shelled peas and beans, do not graze livestock in treated areas or harvest vines for forage or hay.

LEGUME VEGETABLES (SOYBEANS)

	Rate	
Target Pests	lb. a.i./A	fl. oz./A
Bean Leaf Beetle		
Cabbage Looper Corn Earworm	0.015 - 0.025	1.92 - 3.20
Corn Rootworm Beetle (Adult):		
Mexican		
Northern		
Southern		
Western		
Cutworm Species		
Green Cloverworm		
Mexican Bean Beetle		
Painted Lady (Thistle) Caterpillar		
Potato Leafhopper		
Saltmarsh Caterpillar		
Soybean Aphid <sup>4</sup>		
Threecornered Alfalfa Hopper		
Thrips species <sup>5</sup>		
Velvetbean Caterpillar		
Woolybear Caterpillar		
Armyworm <sup>1</sup>		
Blister Beetle species	0.025 - 0.03	3.20 - 3.84
European Corn Borer		
Fall Armyworm <sup>1</sup>		
Grasshopper species		

<sup>&</sup>lt;sup>2</sup> Use higher rates for large larvae.

<sup>&</sup>lt;sup>3</sup> For suppression only.

<sup>&</sup>lt;sup>4</sup> See **Resistance** statement under **Use Directions**.

<sup>5</sup> Does not include Western Flower Thrips.

Japanese Beetle (Adult) Plant Bug species Silverspotted Skipper Stink Bug species Tobacco Budworm <sup>3</sup> Webworm species Yellowstriped Armyworm <sup>1</sup>		
Beet Armyworm <sup>2,3</sup> Lesser Cornstalk Borer <sup>2</sup> Soybean Looper <sup>2,3</sup> Spider Mite species <sup>2</sup>	0.03	3.84

<sup>&</sup>lt;sup>1</sup> Use higher rates for large larvae.

#### Application Instructions for LEGUME VEGETABLES (SOYBEANS)

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Do not graze or harvest treated soybean forage, straw or hay for livestock feed.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gal. of water per acre.
- For control of adult corn rootworm beetles (*Diabrotica* species) as part of an aerial applied corn rootworm control program use a minimum of 0.02 lb. a.i. (2.56 fl. oz. of product) per acre.
- Do not apply within 30 days of harvest.
- Do not apply more than 0.06 lb. a.i. (7.68 fl. oz. or 0.48 pt. of product) per acre per season.

#### LETTUCE (HEAD AND LEAF)

	Rate	
Target Pests	lb. a.i./A	fl. oz./A
Alfalfa Looper		
Cabbage Looper	0.015 - 0.025	1.92 - 3.20
Cutworm species		
Green Cloverworm		
Imported Cabbageworm		
Saltmarsh Caterpillar		
Aphid species <sup>2,3</sup>		
Armyworm	0.02 - 0.03	2.56 - 3.84
Beet Armyworm <sup>1,3</sup>		
Corn Earworm		
Diamondback Moth <sup>3</sup>		
European Corn Borer		
Fall Armyworm <sup>1</sup>		
Flea Beetle species		
Grasshopper species		
Japanese Beetle (Adult)		
Leafhopper species		
Meadow Spittlebug		
Plant Bug species		
including <i>Lygus</i> species <sup>3</sup>		
Southern Armyworm		
Spider Mite species <sup>2</sup>		
Stink Bug species		
Tobacco Budworm <sup>3</sup>		
Vegetable Weevil (Adult)		
Whitefly species <sup>2,3</sup>		

<sup>&</sup>lt;sup>2</sup> Suppression only.

<sup>&</sup>lt;sup>3</sup> See **Resistance** statement under **Use Directions**.

<sup>&</sup>lt;sup>4</sup> Use lower rates for early season applications and/or lighter populations.

<sup>&</sup>lt;sup>5</sup> Does not include Western Flower Thrips.

#### **Application Instructions for LETTUCE (HEAD AND LEAF)**

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gal. of water per acre.
- Do not apply within 1 day of harvest.
- Do not apply more than 0.3 lb. a.i. (38.4 fl. oz. or 2.4 pt. of product) per acre per season.

#### ONION (BULB) AND GARLIC

	Rate	
Target Pests	lb. a.i./A	fl. oz. /A
Cutworm species		
Leafminer species (Adult)	0.015 - 0.025	1.92 - 3.20
Onion Maggot (Adult)		
Seedcorn Maggot (Adult)		
Aphid species <sup>2</sup>		
Armyworm species <sup>1</sup>	0.02 - 0.03	2.56 - 3.84
Flower Thrips <sup>2,3</sup>		
Onion Thrips <sup>3</sup>		
Plant Bug species		
Stink Bug species		
Tobacco Thrips <sup>3</sup>		
Western Flower Thrips <sup>3</sup>		

<sup>&</sup>lt;sup>1</sup> For control of the first and second instar only.

#### Application Instructions for ONION (BULB) AND GARLIC

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Use the higher label rates as thrips population increases and avoid rescue situations.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gal. of water per acre.
- For thrips control by aerial application, the addition of 1% COC v/v, 1/4% NIS v/v or a silicone adjuvant (follow manufacturers use directions) may enhance the deposition of the spray and increase plant coverage.
- Do not apply within 14 days of harvest.
- Do not apply more than 0.24 lb. a.i. (30.72 fl. oz. or 1.92 pt. of product) per acre per season.

<sup>&</sup>lt;sup>1</sup> For control of first and second instar only.

<sup>&</sup>lt;sup>2</sup> Suppression only.

<sup>&</sup>lt;sup>3</sup> See **Resistance** statement under **Use Directions**.

<sup>&</sup>lt;sup>2</sup> Suppression only.

<sup>&</sup>lt;sup>3</sup> See **Resistance** statement under **Use Directions**.

#### **PEANUTS**

	R	ate
Target Pests	lb. a.i./A	fl. oz./A
Cutworm species	0.015 - 0.025	1.92 - 3.20
Green Cloverworm		
Potato Leafhopper		
Red-necked Peanut Worm		
Threecornered Alfalfa Hopper		
Velvetbean Caterpillar		
Bean Leaf Beetle	0.02 - 0.03	2.56 - 3.84
Com Earworm		
Fall Armyworm <sup>1</sup>		
Grasshopper species		
Southern Corn Rootworm (Adult)		
Stink Bug Species		
Tobacco Thrips		
Vegetable Weevil		
Whitefringed Beetle (Adult)		
Aphid species <sup>2</sup>	0.03	3.84
Beet Armyworm <sup>2,3</sup>		
Lesser Cornstalk Borer <sup>2</sup>		
Soybean Looper <sup>2,3</sup>		
Spider Mite species <sup>2</sup>		

<sup>&</sup>lt;sup>1</sup> Use higher rates for large larvae.

#### **Application Instructions for PEANUTS**

- Apply as required by scouting, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gal. of water per acre.
- Do not apply within 14 days of harvest.
- Do not apply more than 0.12 lb. a.i. (15.36 fl. oz. or 0.96 pt. of product) per acre per season.

#### **POMEFRUITS:**

Apple, Crabapple, Loquat, Mayhaw, Oriental Pear, Pear, Quince

	Rate	
Target Pests	lb. a.i./A	fl. oz./A
Aphid	0.02 - 0.04	2.56 - 5.12
Apple Maggot (Adult)		
Cherry Fruit Fly species (Adult)		
Codling Moth		
Green Fruitworm		
Japanese Beetle		
Leafhopper species		
Leafroller species		
Lesser Appleworm		
Omnivorous Leafroller		
Orange Tortrix		
Oriental Fruit Moth		
Pear Psylla <sup>1</sup>		
Pear Sawfly		
Periodical Cicada		
Plant Bug species		
Plum Curculio		
Rosy Apple Aphid		
San Jose Scale (fruit infestations only)		
Spirea Aphid <sup>1</sup>		

<sup>&</sup>lt;sup>2</sup> Suppression only.

<sup>&</sup>lt;sup>3</sup> See **Resistance** statement under **Use Directions**.

Stink Bug species	
Tent Caterpillar species	
Tentiform Leaf Miner species	
Tree Borer species	
Tufted Apple Budworm	
Webworm species	

<sup>&</sup>lt;sup>1</sup> Suppression only

#### **Application Instructions for POME FRUITS**

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds and 1PM recommendations.
- Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage or target area. When applying by air, apply in a minimum of 5 gal. of water per acre, but use higher volumes as appropriate for thorough coverage.
- Do not apply within 21 days of harvest.
- Do not apply more than 0.2 lb. a.i. (25.6 fl. oz. or 1.6 pt. of product) per acre per year. Do not apply more than 0.16 lb. a.i. (20.48 fl. oz. or 1.28 pt. of product) per acre per year post bloom.

#### STONE FRUITS:

Apricot, Chickasaw Plum, Damson Plum, Japanese Plum, Nectarine, Peach, Plum, Plumcot, Prune, Sweet and Tart Cherry,

	Rate	
Target Pests	lb. a.i./A	fl. oz./A
American Plum Borer		
Apple Maggot (Adult)	0.02 - 0.04	2.56 - 5.12
Black Cherry Aphid		
Cherry Fruit Fly species (Adult)		
Codling Moth		
Green Fruitworm		
Japanese Beetle		
June Beetle		
Leafhopper species		
Leafroller species		
Oriental Fruit Moth		
Peach Twig Borer		
Peachtree Borer species		
Pear Sawfly		
Periodical Cicada		
Plant Bug species		
Plum Curculio		
Rose Chafer		
Stink Bug species		
Tent Caterpillar species		
Thrips species		

#### **Application Instructions for STONE FRUITS**

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold and 1PM recommendations.
- Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage or target area.
   When applying by air, apply a minimum of 5 gals. of water per acre, but use higher volumes as appropriate for thorough coverage.
- Do not apply within 14 days of harvest.
- Do not apply more than 0.2 lb. a.i. (25.6 fl. oz. or 1.6 pt. of product) per acre per year. Do not apply more than 0.16 lb. a.i. (20.48 fl. oz. or 1.28 pt. of product) per acre per year post bloom.

#### SUGARCANE

	Rate	
Target Pests	lb. a.i./A	fl. oz./A
Mexican Rice Borer <sup>1</sup>		
Pygmy Mole Cricket	0.025 - 0.04	3.20 - 5.12
Rice Stalk Borer <sup>1</sup>		
Sugarcane Aphid <sup>3</sup>		
Sugarcane Beetle (Adult) <sup>2</sup>		
Sugarcane Borer 1		
West Indian Crane fly		
Yellow Sugarcane Aphid <sup>3</sup>		

<sup>&</sup>lt;sup>1</sup> For control before the larva bores into the plant stalk.

#### **Application Instructions for SUGARCANE**

- Apply as required by scouting, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold.
- Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage or target area. When applying by air, apply a minimum of 2 gal. of water per acre.
- Do not apply within 21 days of harvest.
- Do not apply more than 0.16 lb. a.i. (20.48 fl. oz. or 1.28 pt. of product) per acre per season.

#### **SUNFLOWER**

	Rate	
Target Pests	lb. a.i./A	fl. oz./A
Cutworm species		
Sunflower Beetle	0.015 - 0.025	1.92 - 3.20
Banded Sunflower Moth		
Fall Armyworm <sup>1</sup>	0.02 - 0.03	2.56 - 3.84
Grasshopper species		
Head-Clipper Weevil (Adult)		
Japanese Beetle (Adult)		
Leafhopper species		
Meadow Spittlebug		
Painted Lady (Thistle) Caterpillar		
Seed Weevil (Adult)		
Spotted Cabbage Looper		
Stem Weevil (Adult)		
Stink Bug species		
Sunflower Maggot (Adult)		
Sunflower Moth		
Woollybear Caterpillar		
Beet Armyworm <sup>2,3</sup>		
Spider Mite species <sup>2</sup>	0.03	3.84

<sup>&</sup>lt;sup>1</sup> Use higher rates for large larvae.

#### **Application Instructions for SUNFLOWERS**

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of sunflower heads and/or foliage. When applying by air, apply in a minimum of 2 gal. of water per acre.
- Do not apply within 45 days of harvest.
- Do not apply more than 0.12 lb. a.i. (15.36 fl. oz. or 0.96 pt. of product) per acre per season. Do not apply more than 0.09 lb. a.i. (0.72 pt.) /A per season after bloom initiation.
- Do not apply as an ultra-low volume (ULV) spray.

<sup>&</sup>lt;sup>2</sup> Suppression only of beetles active above ground.

<sup>&</sup>lt;sup>3</sup> See **Resistance** statement under **Use Directions**.

<sup>&</sup>lt;sup>2</sup> Suppression only.

<sup>&</sup>lt;sup>3</sup> See **Resistance** statement under **Use Directions**.

#### **TOBACCO**

	Rate	
Target Pests	lb. a.i./A	fl. oz./A
Armyworm species <sup>1</sup>		
Blister Beetle species	0.015 - 0.03	1.92 - 3.84
Cabbage Looper		
Corn Earworm		
Cucumber Beetle species (Adult)		
Cutworm species		
Grasshopper species		
Japanese Beetle (Adult)		
Katydid species		
Plant Bug species <sup>3</sup>		
Potato Tuberworm		
Salt Marsh Caterpillar		
Stinkbug species		
Tobacco Aphid species <sup>2,3</sup>		
Tobacco Budworm <sup>3</sup>		
Tobacco Flea Beetle (Adult)		
Tobacco Hornworm		
Tobacco Thrips species <sup>2</sup>		
Tomato Hornworm		
Tree Cricket species		
Vegetable Weevil (Adult)		
Webworm species		

<sup>&</sup>lt;sup>1</sup> For control of first and second instars only.

#### **Application Instructions for TOBACCO**

- Apply as required by scouting, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold.
- Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage. When applying by air, apply in a minimum of 2 gal. of water per acre.
- Do not apply within 40 days of harvest.
- Do not apply more than 0.09 lb. a.i. (11.52 fl. oz. or 0.72 pt. of product) per acre per year.

<sup>&</sup>lt;sup>2</sup> Suppression only.

<sup>&</sup>lt;sup>3</sup> See **Resistance** statement under **Use Directions**.

#### TREE NUTS:

Almond, Beech Nut, Brazil Nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (Hazelnut), Hickory Nut, Macadamia Nut (Bush Nut), Pistachio, Walnut, Black Walnut, English (Persian)

	R	ate
Target Pests	lb. a.i./A	fl. oz./A
	0.02 - 0.04	2.56 - 5.12
Chinch Bug		
Codling Moth		
Filbertworm		
Leaffooted Bug		
Leafroller species		
Navel Orangeworm		
Peach Twig Borer		
Plant Bug species		
Stink Bug species		
Walnut Aphid		
Walnut Husk Fly species (Adult)		

#### **Pecans**

	Rate	
Target Pests	lb. a.i./A	fl. oz./A
Hickory Shuckworm	0.02 - 0.04	2.56 - 5.12
Pecan Aphid species		
Pecan Casebearer species		
Pecan Phylloxera species		
Pecan Spittlebug		
Pecan Weevil		
Stink Bug species		

#### **Application Instructions for TREE NUTS**

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold.
- Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage or target area.
   When applying by air, apply in a minimum of 5 gal. of water per acre, hut use higher rates as appropriate for thorough coverage.
- Do not apply within 14 days of harvest.
- Do not apply more than 0.16 lb. a.i. (20.48 fl. oz. or 1.28 pt. of product) per acre per year. Do not apply more than 0.12 lb. a.i. (15.36 fl. oz. or 0.96 pt. of product) per acre per year post bloom.

TUBEROUS AND CORM VEGETABLES (Potato, Sweet Potato, Yams and Related): Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem only), Canna (edible), Cassava (bitter and sweet), Chayote (root), Chufa, Dasheen, Ginger, Leren, Potato, Sweet Potato, Tanier, Turmeric, Yam (bean and true)

	Rate	
Target Pests	lb. a.i./A	fl. oz./A
Cutworm species		
Leafhopper species	0.015 - 0.025	1.92 - 3.20
Saltmarsh Caterpillar		
Sweet Potato Hornworm		
Woolybear Caterpillar species		
Aphid species 1		
Armyworm species 1	0.02 - 0.03	2.56 - 3.84
Blister Beetle species		
Colorado Potato Beetle 1		
Corn Earworm		
Cricket species		
Cucumber Beetle species (adults)		
European Corn Borer		

Flea Beetle species (adults)		
Grasshopper species /		
Looper species <sup>1</sup>		
Lygus Bug species <sup>1</sup>		
Plant Bug species		
Potato Psyllid		
Potato Tuberworm		
Stink Bug species		
Sweet Potato Leaf Beetle (adults)		
Sweet Potato Vine Borer		
Thrips species 1,2		
Tortoise Beetle species		
Webworm species		
Weevil species (adults)		
Leafminer species <sup>1,3</sup>		
Whitefly species 1,3	0.03	3.84
Spider Mite species <sup>3</sup>		

<sup>&</sup>lt;sup>1</sup> See **Resistance** statement under **Use Directions**.

#### **Application Instructions for TUBEROUS AND CORM VEGETABLES**

- Apply as required by scouting, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of all above ground plant parts. When applying by air, apply in a minimum of 2 gal. total solution per acre.
   When applying by ground, a minimum of 10 gal. total solution per acre is recommended.
- Use higher application volumes and/or rates when foliage is dense, pest populations are high, larvae are large, weather conditions are adverse and/or as plant size increases. Use higher rates for longer residual.
- Insects that bore or tunnel into leaves, vines, stems, tubers or corms must be controlled before penetration. Only exposed insects (larvae and/or adults) can be controlled with foliar applications of Omni Brand Lambda 1 EC.
- Do not apply more than 0.12 lb. a.i. (15.36 fl. oz. or 0.96 pt. of product) per acre per season. Do not apply within 7 days of harvest.

#### NON-AGRICULTURAL USES

#### **CONIFER AND DECIDUOUS TREES:**

#### **Plantations and Nurseries**

	Rate		
Target Pests	lb. a.i./A	fl. oz./A	
Bagworm			
Balsam Twig Aphid	0.02 - 0.04	2.56 - 5.12	
Balsam Wooly Aphid			
Birch Leafminer			
Black Pine Weevil			
Elm Leaf Beetle			
European Elm Bark Beetle			
Gypsy Moth			
Japanese Beetle			
June Beetle species			
Leaf Beetle species			
Leafroller species			
May Beetle species			
Mealybug species <sup>1</sup>			
Pales Weevil			
Pine Chafer			
Pine Colaspis Beetle			

<sup>&</sup>lt;sup>2</sup> Does not include Western Flower Thrips.

<sup>&</sup>lt;sup>3</sup> Suppression only.

Pine Conelet Bug	
Pine Leaf Chermid	
Pine Needle Scale	
Pine Sawfly species	
Pine Tip Moth species	
Pine Tortoise Scale	
Pine Weevil species	
Poplar Aphid species	
Sawfly species	
Spittlebug species	
Spruce Budworm	
Tent Caterpillar species	
Tussock Moth species	
Webworm species	

<sup>&</sup>lt;sup>1</sup> Suppression only.

#### **Application Instructions for CONIFER AND DECIDUOUS TREES**

- To control exposed foliage, flower, cone, seed and bark feeding insects, apply as required by scouting.
   Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground equipment using sufficient water to obtain full coverage of target site. When applying by air, apply a minimum of 2 gal. of water per acre.
- Do not apply more than 0.24 lb. a.i. (30.72 fl. oz. or 1.92 pt. of product) per acre per year.

### CONIFER AND DECIDUOUS TREES:

#### **Seed Orchards**

	Rate
Target Pests	
Coneworm species Seed Bug species Thrips species	For high volume sprayers, dilute 5.12 fl. oz. per 100 gal. of water and apply 5-10 gal. of finished spray per tree.
	For low volume sprayers, dilute 20 fl. oz. per 100 gal. of water and apply 100 gal. of finished spray per acre.
	For aerial applications, apply 15 fl. oz. per acre in a minimum of 10 gal. finish spray per acre.

#### Application Instructions for CONIFER AND DECIDUOUS TREES: Seed Orchards

• Do not apply more than 0.5 lb. a.i. (64 fl. oz. or 4 pt. of product) per acre per year.

NON-CROPLAND (Crop Outlets, including turn rows, wind rows, hedge rows, field borders and buffer zones)(EXCLUDING PUBLIC LAND)

	Rate	
Target Pests	lb. a.i./A	fl. oz./A
See Specific Crops on this Omni Brand Lambda 1 EC label for target pest and rates.	See Specific Crops	See Specific Crops

#### **Application Instructions for NON-CROPLAND (EXCLUDING PUBLIC LAND)**

- Spray non-cropland adjacent to agricultural areas to control migratory insects, which may threaten crops.
- Follow **Use Directions**, rates and spray recommendations found elsewhere in this label for the adjacent crop outlet and target pests.
- Use highest labeled rates for dense/large foliage, high insect populations and larger larval stages.
- Repeat as necessary to maintain control.

- Do not exceed 0.2 lb. a.i. (25.6 fl. oz. or 1.6 pt. of product) per acre per year.
- Do not graze livestock in treated areas.

#### Rate Conversion Chart

Lb. A.I. Per Acre	Fl. Oz. Per Acre	Pints Per Acre	Treated Acres Per Gallon
0.015	1.92	0.12	66
0.02	2.56	0.16	50
0.025	3.20	0.20	40
0.03	3.84	0.24	33
0.04.	5.12	0.32	25

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

**PESTICIDE STORAGE:** Store in a cool, dry place and away from open flame and extreme heat. Store in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If container is leaking, invert container to prevent leakage. If the container is leaking or material spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material.

Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away.

#### **PESTICIDE DISPOSAL:**

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### **CONTAINER HANDLING:**

**Nonrefillable container.** Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at www.acrecycle.org. If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

For packages up to 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

For packages greater than 5 gallons and less than 56 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back

and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**For packages greater than 56 gallons:** To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

**For refillable containers:** Refill this container with this product only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

For final disposal, offer for recycling or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300.

## CONDITIONS OF SALE - LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES

Read the Conditions of Sale - Warranty and Limitations of Liability and Remedies before using this product. If the terms are not acceptable, return the product, unopened, and the full purchase price will be refunded.

The directions on this label are believed to be reliable and must be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions or the failure to follow the label directions or good application practices, all of which are beyond the control of Helena Chemical Company (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. To the extent consistent with applicable law, the Company makes no other warranties or representations of any kind; express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

To the extent consistent with applicable law, the exclusive remedy against the Company for any cause of action relating to the handling or use of this product shall be limited to, at Helena Chemical Company's election, one of the following:

- 1. Refund of the purchase price paid by buyer or user for product bought, or
- 2. Replacement of the product used

To the extent consistent with applicable law, the Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income. The Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability and remedies.